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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/991,140	11/16/2001	Eser Kandogan	ARC920010111US1	4809
30355	7590	09/20/2005		
DANIEL E. JOHNSON IBM CORPORATION, ALMADEN RESEARCH CENTER INTELLECTUAL PROPERTY LAW DEPT. C4TA/J2B 650 HARRY ROAD SAN JOSE, CA 95120-6099			EXAMINER EDWARDS JR, TIMOTHY	
			ART UNIT	PAPER NUMBER
			2635	

DATE MAILED: 09/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/991,140

Applicant(s)

KANDOGAN ET AL.

Examiner

Timothy Edwards, Jr.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 19 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed July 19, 2005 have been fully considered but they are not persuasive. As set forth in Examiner's Response.

#### **Applicant's Argument:**

- 1) Differences in methodologies (pages 15-16 of applicant's REMARKS) between the present application and cited prior art Stone '193.
- 2) Differences in apparatuses (pages 17-19 of applicant's REMARKS) between the present application and cited prior art Stone '193.
- 3) Use of a finger or stylus to input characters (pages 20-24 of REMARKS) of the present application and Stone '193.

#### **Examiner's Response:**

With respect to part (1) above, applicant argues, the cited prior art's method of inputting a character is the concurrent pressing of two keys. Applicant's method of inputting a character is the sequential pressing of two keys. Stone suggests the keyboard of his device may be electronically implemented by any appropriate means known to those skilled in the art (see col 3, lines 10-12). Stone states in col 5, lines 48-50 the electronics for producing the appropriate key combination can be achieved by methods known to those in the art. Sequential selection of two-keys to input a character is well known in the art as admitted by applicant in his specification on page 3, lines 9-

19 and as pointed out by examiner in office action dated 29 July 2004 (see prior art made of record). This would suggest the key actuation method of the Stone keyboard maybe implemented using sequential selection of two keys because Stone suggest the keyboard of his device may be electronically implemented by any appropriate means known to those skill in the art and applicant admits the sequential selection of two-keys to input a character is well known in the art.

With regard to the argument Stone not mentioning the changing of the number of keys appearing on his keyboard and the arrangement of the Stone device. Examiner re-directs applicant's attention to col 6, lines 34-38. Stone states his invention may be varied in many ways. **For example**, the number and the location of the fields may be rearranged, and the lettering and coloring may be changed to suit the **particular device** (emphasis added). The phrase "changed to suit a particular device" is interpreted by the Examiner to referee to any device having a keyboard to enter alphanumeric data. Therefore, Stone suggests any device can be used to incorporate the spirit and scope of the Stone invention, which the examiner interprets to be, a color-coded one-hand keyboard for selecting from a variety of characters. The keys of the keyboard are subdivided into a plurality of fields in which each of the keys within one of the fields has a background color different from that of every other key within that field. Characters are printed on each of the keys with a particular color. The color-coded keys makes the two key combinations unambiguous are suggested by the keyboard itself (see col 2, lines 20-39 and Abstract). Therefore, it would have been obvious to one of ordinary skill in the art to modify the keyboard of Stone by using any number of keys and rearranging

the keys on the Stone keyboard because Stone suggests the modification and this modification would be within the spirit and scope of the Stone invention, as stated by the Examiner above.

With respect to part (2) above, applicant argues the Stone keyboard and the keyboard of the present application are different apparatuses. Applicant states, "Applicants' keyboard is consistent with standard telephone and cell phone keyboards. Stone addresses in col 1, line 43 to col 2, line 2 the need for a telecomputing one-handed, pocket sized device having a full typewriter keyboard which can be used to send and receive messages and enter alphanumeric characters. Also, Stone suggests in col 6, lines 34-41 the changing and rearranging of letters to suit a **particular device**. This would suggest the telecomputing pocket size device for entering alphanumeric character taught by Stone could be any device used to send and receive alphanumeric data. Examiner introduced Novel '332 which taught a telecomputer comprised a cellular telephone. Stone discloses the need for a telecomputing one-handed, pocket sized device having a full typewriter keyboard, which can be used to send and receive messages, and enter alphanumeric characters. Stone, also suggests any device can be used to incorporate the spirit and scope of the Stone invention (which is expressed in part (1), 2<sup>nd</sup> paragraph). This would suggest the color-coded one-hand keyboard method of Stone for inputting a variety of characters maybe used in a telephone device because Stone expresses the desire use his method and modify the number and the location of the fields may be rearranged, and the lettering and coloring may be changed to suit the **particular device** (emphasis added).

With respect to part (3) above, applicant argues, "Stone requires that two (different) fingers be used simultaneously" and the use of a finger or stylus allows the user to input data using a sequential input method. Applicant also argues, Stone discloses the concurrent entry of two-keys to input a character. However, Stone also, suggests the use of any method known in the art to for inputting a character in a two-key input method. This argument is consistent with applicant's argument with respect to sequential activation of keys. This argument was addressed in part (1) above.

With regards to applicant's argument Stone does not recite changing the number of keys in the Stone device. This argument was addressed in part (2) above. With regards to applicant's argument the proposed modification of the Stone device as suggested by Examiner would certainly change the principle of operation of Stone. All modification of the Stone reference recited by Examiner where suggested by the Stone reference.

Therefore, examiner maintains office action dated 18 April 2005 and remains of the opinion the Stone reference is pertinent to applicant's disclosure.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-25,28-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stone '193 and further in view of Novel et al WO 94/15431 and Smith '098.

Considering claim 1, Stone discloses keyboards including color coding and one handed operation comprising, a) a plurality of characters displayed on the keys have associated markings such that any given character marking on that key is uniquely identified with a single displayed character (see fig 1, items 14a-14d); b) a plurality of keys having respective markings that visually match character markings (see fig 1, items 14a-14d and 16a-16d); c) selecting a first character, having a first marking, displayed on a first one of 8 keys and then selecting a key displaying the first marking (see col 2, lines 19-31); d) selecting a second character, having a second marking, displayed on a first one of 8 keys and then selecting a key displaying the second marking, keys displaying the first and second marking are different (see col 3, lines 29-40); e) except Stone does not specifically recite numeral 0 through 9 are inclusive displayed on a respective one of the keys and at least 8 of the numeral-displayed keys further have language character displayed thereon. However, Stone addresses in col 1, line 43 to col 2, line 2 the need for a telecomputing one-handed, pocket sized device having a full typewriter keyboard which can be used to send and receive messages and enter alphanumeric characters. Also, Stone suggests in col 6, lines 34-38 the changing and rearranging of letters to suit a particular device. Novel teaches on page 11 the use of a portable telecomputer device having a telephone as a data input means. Smith teaches in fig 2 the use of a telephone keypad to enter alphanumeric data by activating two keys sequentially. One of ordinary

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skill in the art readily recognizes the layout of a telephone keypad is numeral 0 through 9 are inclusive displayed on a respective one of the keys and at least 8 of the numeral-displayed keys further have language character displayed thereon (i.e. a 3x3 matrix). Therefore, it would have been obvious to use a 3x3 matrix keypad as a data input means in the suggested telecomputer communication system of Stone as taught by Novel because Stone states his data input method is suited for a pocket sized telecomputing system. Stone also, suggests the modification and rearranging of letter, of his device, to suit a particular device. The selection of two-keys to input a character is well known in the art as admitted by applicant in his specification on page 3, lines 9-19 and as taught by Smith. With respect to the selection of each key with a users finger or stylus Examiner interpreted this as sequentially inputting data and is addressed in part (e) above.

Considering claim 2, Stone discloses the limitation of this claim in col 2, lines 19-40.

Considering claim 3, Stone discloses the limitation of this claim in fig 1.

Considering claim 4, Stone discloses the limitation of this claim in col 2, lines 26-31.

Considering claim 5, the limitation of this claim is interpreted and rejected as stated in part (e) of claim 1.



Considering claim 6, Stone discloses the limitation of this claim in fig 1.

Considering claims 7-11,32-37 the limitations of these claims are interpreted and rejected as stated in part (e) of claim 1.

Considering claims 12,18,19 Stone discloses the limitations of these claims in fig 1.

Considering claim 13, the limitation of this claim is interpreted and rejected as stated in claim 1, part (e).

Considering claim 14, Stone discloses the limitation of this claim in fig 1.

Considering claims 15-17,20-23 the limitations of these claims are interpreted and rejected as stated in part (e) of claim 1.

Considering claim 24, the limitation of this claim is interpreted and rejected as stated in claim 1. With respect to selecting a second key with letter free regions having a color that matches the first selected letter (see Stone fig 1, items 18b and 18c).

Considering claim 25, the limitation of this claim is interpreted and rejected as stated in claim 1 and in col 5, lines 48-60.

Considering claim 28-31, the limitations of these claims are interpreted and rejected as stated in claim 1, part (e).

Claims 26,27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stone, Novel and Smith as applied to claims 23 and 25 above, and further in view of Prame '997.

Considering claim 26 and 27, Stone does not specifically recite computer program including code for generating a character corresponding to two keys pressed on a color-coded keyboard. However, Stone discloses in col 3, lines 10-12 "The keyboard may be electronically implemented by any appropriate means known to those skilled in the art." The use of means to convert key sequence into characters is well known in the art. Prame teaches in col 2, lines 16-25 the use of a microcomputer means to convert key sequence into characters. This would suggest means to convert key sequence into characters of keys is within the scope of the Stone system because Stone discloses transmitting and receiving messages and both references are concern with the use of two keys to enter a character. Stone suggests the use of any appropriate means known in the art.

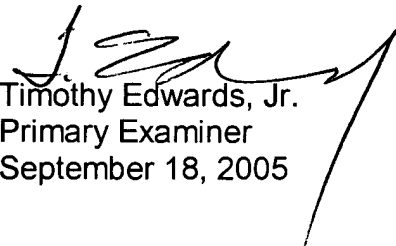
1. Any inquiry concerning this communication should be directed to Examiner Timothy Edwards at telephone number (571) 272-3067. The examiner can normally be reached on Tuesday-Friday, 8:00 a.m.-6:00 p.m. The examiner cannot be reached on Mondays.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik, can be reached at (571) 272-3068.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272-4700, Mon-Fri., 8:30 a.m.-5:00 p.m.

Any response to this action should be fax to:

(571), 273-8300 (for formal communications intended for entry)



Timothy Edwards, Jr.  
Primary Examiner  
September 18, 2005